





By: Hussam Alsaleh

Twitter: [_p22e_](#)

web: PT-WORLD.COM

Email: p2e@hotmail.com



Definition



- Overusing smartphones with bad postures during use, and that brought us the problems and pain in the neck.
- smartphone overuse with awkward position during use, which brings multiple problems for the neck and area around.





Cervical Spine



- The 7 vertebrae of the cervical spine are divided into:
 - Upper cervical spine
 - C1-C2 (Occiput-atlas-axis)
 - Allow for greater mobility
 - No intervertebral disc (IVD)
 - Lower cervical spine
 - C3-C7
 - Vertebral structures are similar
 - Disc at every level



Joints



- Occipito-Atlantal Joint (OA Joint)
- Atlantoaxial Joint (AA Joint)
- Facet Joint (Zygapophyseal Joints)
- Joint of the Lower Cervical Vertebrae (C3 - C7)
 - Uncovertebral Joint (Joint of Luschka)



Ligaments



□ Upper Cervical Ligaments:

- Occipito-atlantal Ligament Complex
 - Anterior
 - Posterior
 - Lateral
- Occipito-axial Ligament Complex
 - Occipito-axial ligament
 - Alar ligament
 - Apical ligament
- Transvers ligament

□ Lower Cervical Ligaments:

- Anterior Longitudinal Ligament (ALL)
- Intertransverse ligaments
- Posterior longitudinal ligament
- Interspinous ligament
- Supraspinous ligament
- Ligamentum flavum



Muscles



- Flexor Muscles
 1. Rectus capitis anterior
 2. Rectus capitis lateralis.
 3. Longus capitis.
 4. Longus colli.



Muscles



- Extensor Muscles:
 1. Splenius capitis.
 2. Splenius cervicis.
 3. Assisted by:
 - Rectus capitis posterior major and minor.
 - Obliquus capitis superior and inferior.



Muscles



- Lateral Flexors:
 1. Sternocleidomastoid.
 2. Levator scapulae.
 3. Scalenus anterior, posterior, & medius.
 4. Plus the cervical flexors and extensors when developing tension unilaterally.



Anatomy



Neck Anatomy

Vertebra

Anterior longitudinal ligaments

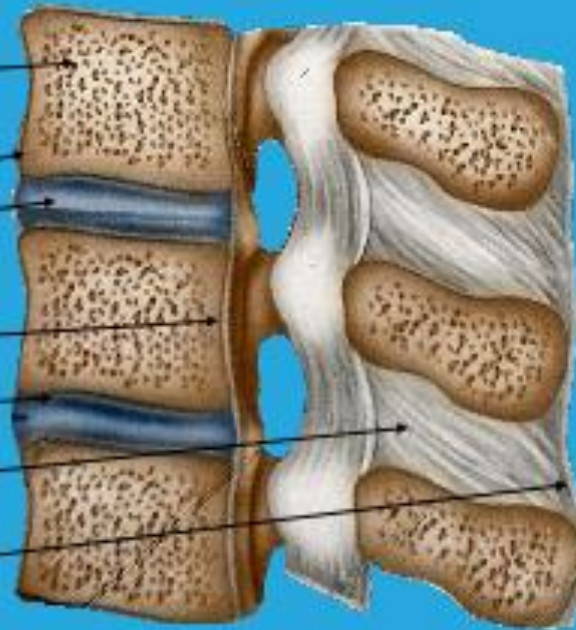
Intervertebral disc

Posterior longitudinal ligaments

Articular cartilage

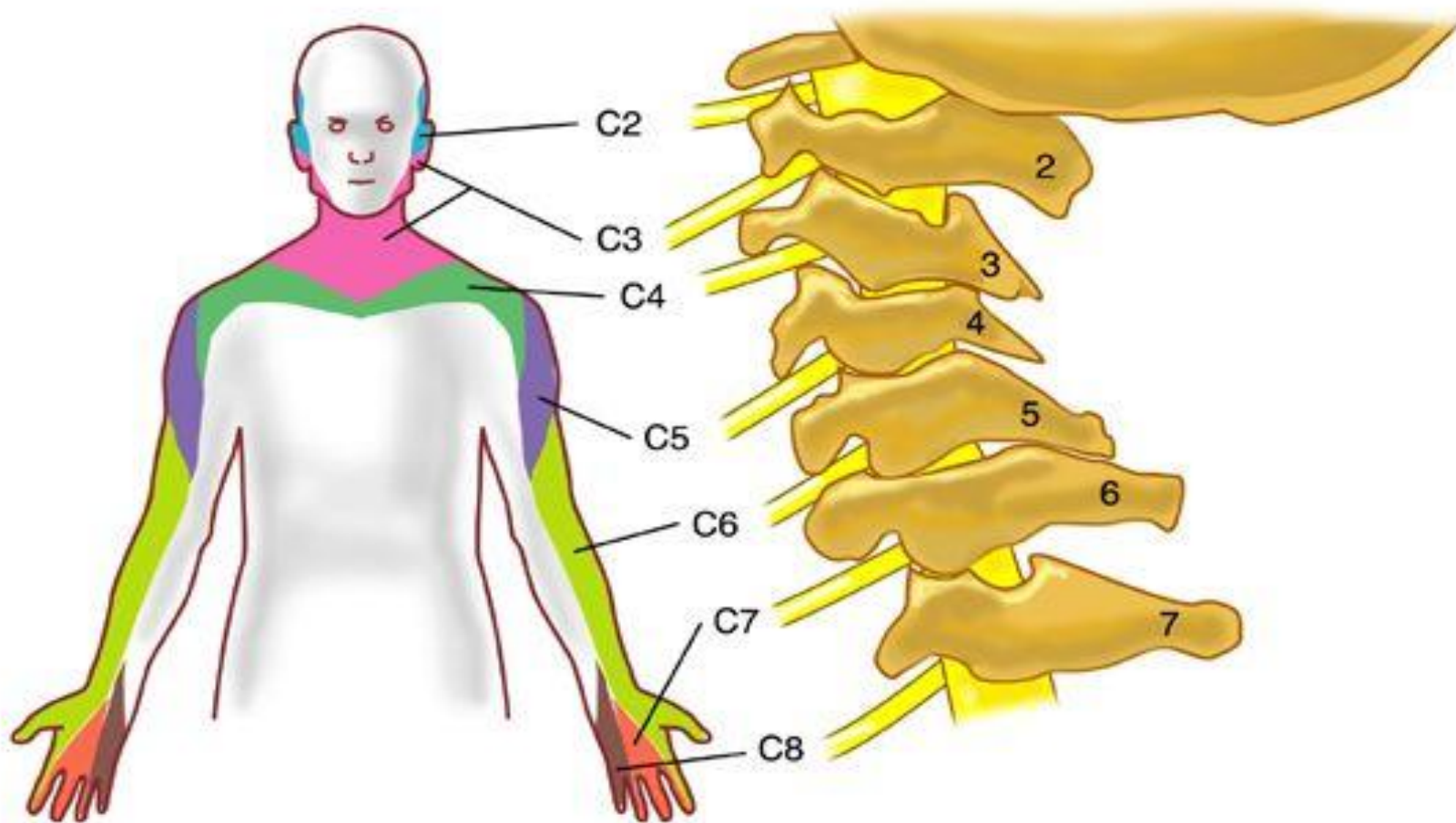
Interspinous ligament

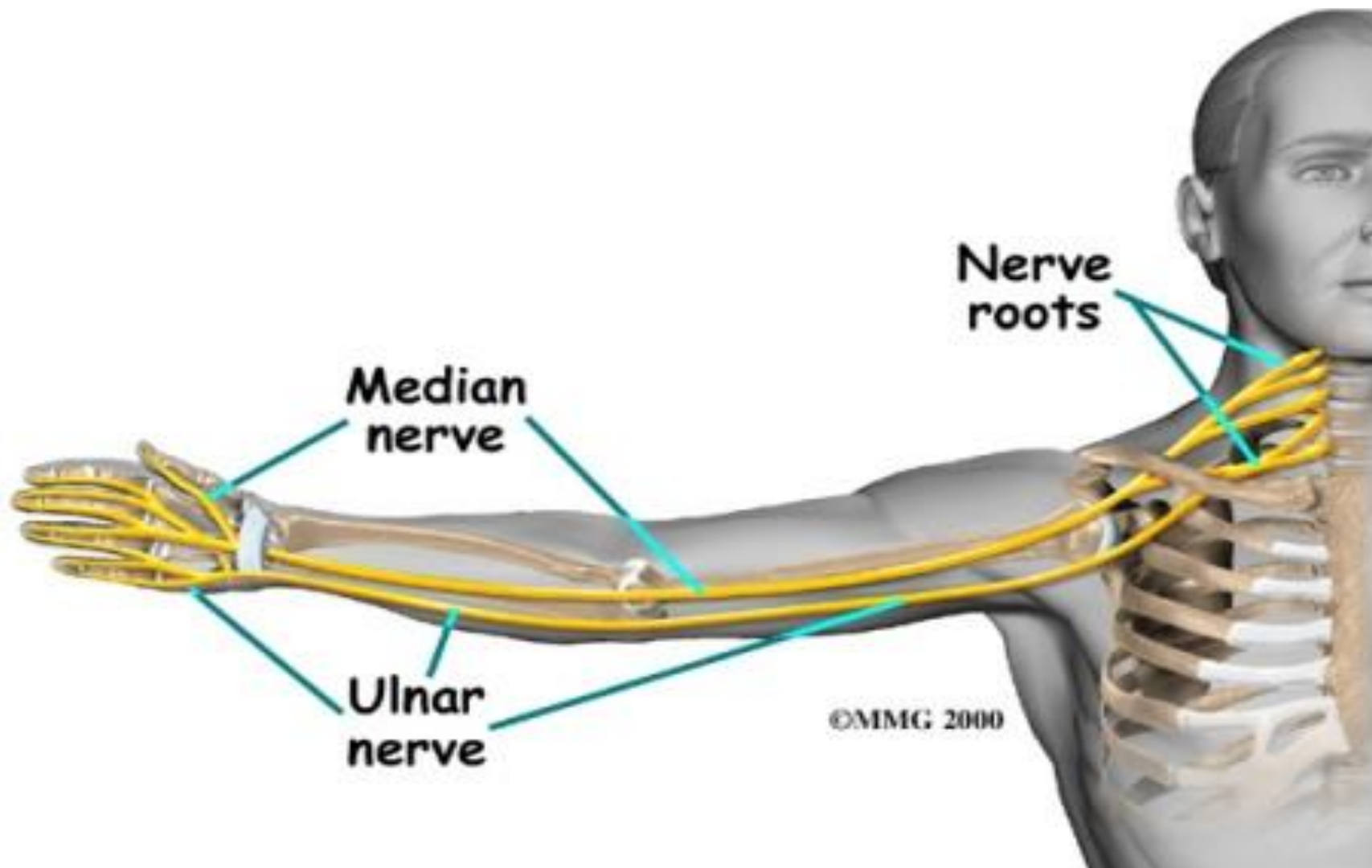
Supraspinous ligament





cervical myotomes





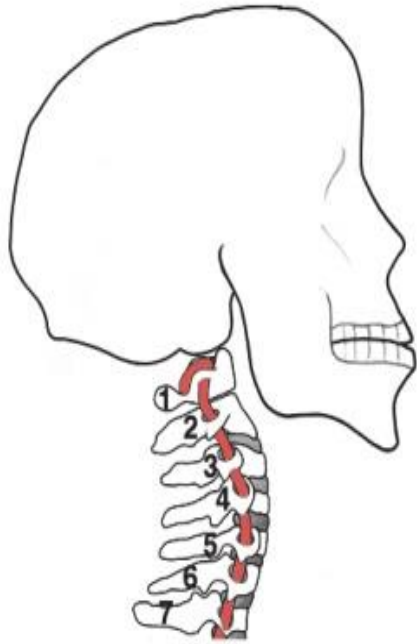


postures

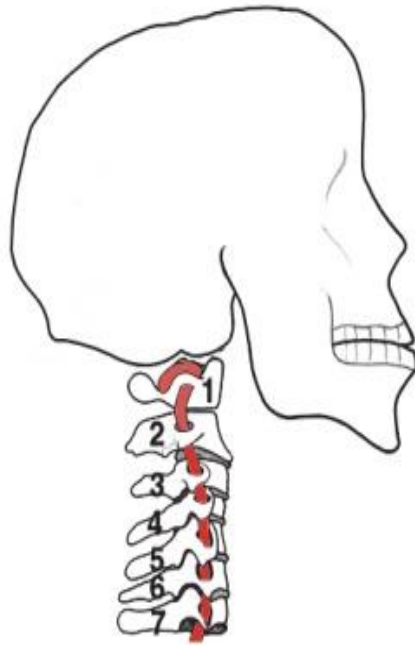




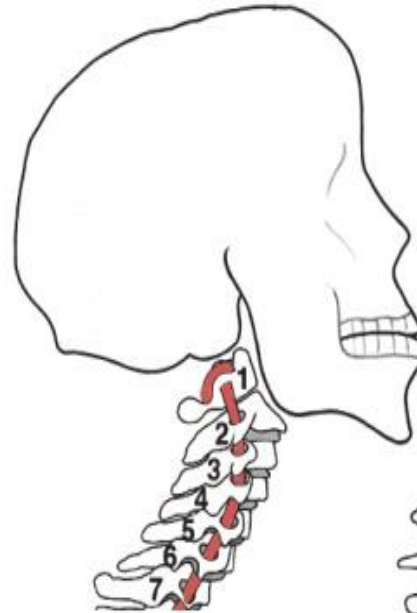
postures



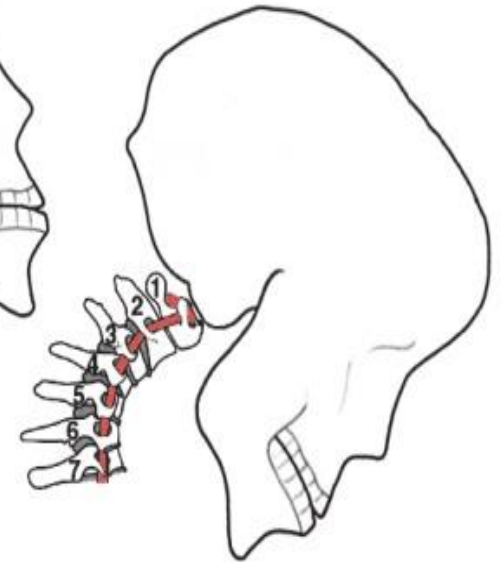
Normal Neck



Straight Neck



Swan Neck



Reversed Neck



postures



iphone syndrome



Tension Headache →

Neck and
shoulder pain →

Difficulty breathing,
pain in →
middle of back,
chest, and
lower back





Signs & Symptoms



- Looking down at cell phones and other electronic devices causes the neck to be stuck in an unnatural posture with a bent neck for prolonged periods of time leading to problems with neck pain and discomfort.
1. Tightness or stiffness across the shoulders.
 2. Soreness in the neck.
 3. Chronic Headaches.
 4. Postural change.
 5. Numbness and Tingling in the upper extremities.
 6. Pain in the neck, Back, shoulder, Arm, Elbows, Hands.



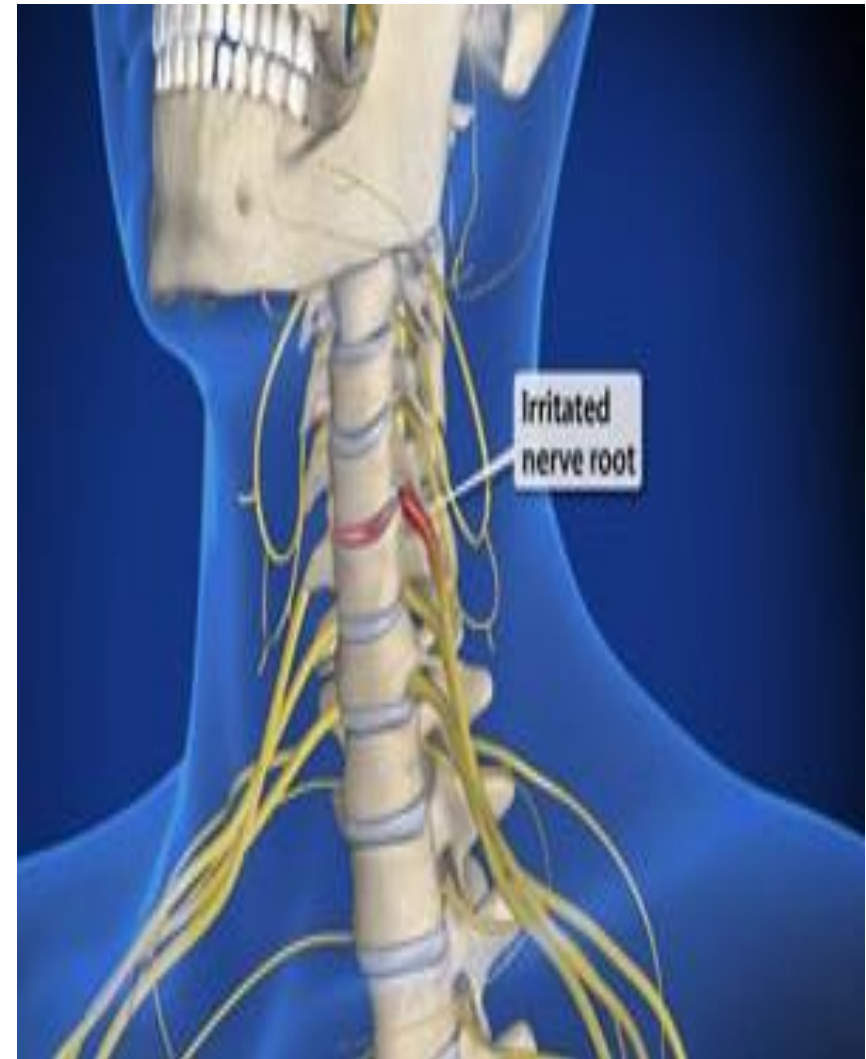
Diagnose



1. Patient's medical history along with physical and neurological examination is done.
2. Radiographic studies such as x-ray.
3. MRI is done to detect bulging discs and herniations that are usually responsible for neurologic symptoms.
4. Nerve conduction studies and/or electromyography are done to find out if there has been any nerve damage.



Cervical Radiculopathy





Treatment



- Medications:

such as Medicines like non-steroidal anti-inflammatory drugs (NSAIDs), muscle relaxants, and narcotics may be prescribed for short-term use.

Trigger point injections are beneficial in some patients.





Treatment



- **Cervical Collars:**

These restrict movement and support the head taking the burden off the neck. Lying down also helps in limiting the neck movement and reducing pressure (weight) thus giving the muscles rest while healing.





Treatment



- Cervical Traction:
- Cervical traction gently pulls the head and stretches the neck muscles thus increasing the size of the neural passageways (foramen).





Physical Therapy



- Helpful in relieving neck pain and is incorporated into the treatment plan.





Physical Therapy



- Neck exercises:



(The arrow represents the direction the head is moving and the hands are resisting, but not stopping, the movement; Use light pressure through the full ROM)

Thank you

